

Appl. No.: 10/716,775
Amdt. dated 04/26/2006
Reply to Office action of March 22, 2006

REMARKS/ARGUMENTS

Claims 1-8, 10-19, 21-31, and 37-38 are pending. Claims 11, 16, 22-24, 29, and 35 were indicated in the Office Action to be drawn to patentable subject matter. Claims 1, 7, and 8 were rejected as anticipated by U.S. Patent No. 3,709,161 to Kauffman. Claims 1, 2-6, 8, 21, 25, and 27 were rejected as anticipated by U.S. Patent No. 5,876,831 to Rawal. Claims 1, 3, 9, 10, 12-15, 18-20, 21, 26, 28, 30-34, and 36 were rejected as anticipated by U.S. Patent No. 5,177,924 to Kakuk. Claim 17 was rejected as unpatentable over Rawal.

Independent Claims 1 and 10 as amended above are directed to a reinforced panel having a face sheet and a plurality of integral and intersecting ribs projecting from an interior side of the face sheet to form contiguous cells. The ribs and the face sheet comprise a one-piece molded fibrous panel such that the ribs are integral with the face sheet. A channel is defined extending across a plurality of contiguous cells and an elongate reinforcing member is positioned in the channel and secured therein for increasing the bending resistance of the panel.

Kauffman discloses a honeycomb core sandwich panel. The honeycomb core is formed separately from the face sheets (col. 2, lines 1-10), as in conventional honeycomb sandwich panels. For at least this reason, Kauffman does not anticipate Claim 1, which requires the ribs and face sheet to be integral with one another.

Additionally, Kauffman does not disclose an elongate reinforcing member secured in a channel formed in the panel for increasing the bending resistance of the panel. The item 16 referred to in the Office Action is a fork of a forklift truck used for lifting the panel. The fork is pushed into the walls of the honeycomb cells in a region having slits 14 in the walls such that the fork ruptures the walls and allows the fork to penetrate into the panel (col. 2, lines 33-43).

For at least these reasons, Kauffman does not anticipate or render obvious the reinforced panel of Claim 1.

Rawal discloses a honeycomb core sandwich panel. As in Kauffman, the honeycomb

core is formed separately from the face sheetss. For at least this reason, Rawal does not anticipate Claim 1, which requires the ribs and face sheet to be integral with one another.

Furthermore, Rawal does not disclose an elongate reinforcing member secured in a channel that extends across a plurality of contiguous cells of the panel, for increasing bending resistance of the panel. Rather, Rawal discloses thermal plugs inserted into a plurality of cells of the honeycomb core. There is nothing in Rawal teaching or suggesting that the plugs have any effect of increasing bending resistance of the panel. Instead, the purpose and effect of the plugs are to function as a heat sink and dissipate heat energy away from heat-producing devices mounted on the panel (col. 1, lines 56-67; col. 2, lines 1-22).

For these reasons, it is submitted that Rawal does not anticipate or render obvious the reinforced panel of Claim 1.

Kakuk discloses an *extruded* panel that includes air chambers and reinforcing members. Because the panel is extruded, the cells extend only in the length (extrusion) direction and are spaced apart only along the perpendicular width direction. In contrast, Claim 1 recites a reinforced panel comprising a face sheet and a plurality of ribs projecting from the interior side of the face sheet, the ribs intersecting to form contiguous cells spaced apart along length and width directions of the reinforced panel, the panel defining at least one channel extending across a plurality of contiguous cells.

Thus, Kakuk fails to disclose or suggest ribs intersecting to form cells that are spaced apart along both length and width directions of the panel. Kakuk's cells are spaced apart only in the width direction because it is not possible to extruded intersecting ribs as claimed.

For at least these reasons, Claim 1 is not anticipated or suggested by Kakuk.

Claim 10 is directed to a reinforced panel essentially comprising two panels generally as recited in Claim 1, joined together to form the reinforced panel. Accordingly, for substantially

the same reasons noted above for Claim 1, Claim 10 is not disclosed or suggested by the cited references.

Claim 21 is directed to a method of making a reinforced panel generally as recited in Claim 1. Accordingly, for substantially the same reasons noted above for Claim 1, Claim 21 is not disclosed or suggested by the cited references.

New Claim 37 is directed to a reinforced panel comprising a molded fibrous face sheet having opposite generally planar surfaces and a plurality of fibrous ribs molded integrally with the face sheet and projecting from one of the generally planar surfaces thereof, the ribs intersecting one another to form a plurality of cells each extending in a thickness direction of the panel and spaced apart along length and width directions of the panel; an elongate channel formed in the panel, the channel extending along a direction perpendicular to the thickness direction and spanning a plurality of contiguous ones of the cells; and an elongate reinforcing member secured in the channel.

The claims dependent on the above-discussed independent claims are patentable for at least the same reasons applicable to the independent claims.

Additionally, Claim 7 recites that the face sheet, ribs, and reinforcing member are formed from papermaking fibers. None of the cited references discloses a reinforcing member formed from papermaking fibers. The thermal plugs of Rawal, which the Office Action has asserted (erroneously, as already noted) correspond to the claimed reinforcing member, are formed from a highly conductive non-metallic material such as self-reinforced graphite (col. 5, lines 54-56). Kakuk discloses metal or wood reinforcement members (col. 6, lines 48-49, 55-56; col. 7, lines 1-2). Thus, Claim 7 is patentable for the additional reason that the cited references do not teach or suggest a reinforced panel having face sheet, ribs, and reinforcing member made of papermaking fibers.

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Conclusion

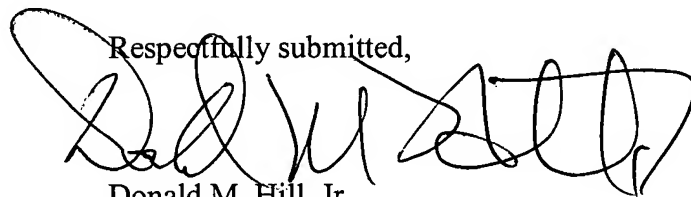
Based on the above amendments and remarks, Applicant respectfully submits that all pending claims are patentable and the application is in condition for allowance.

Consideration Of Previously Submitted Information Disclosure Statement

It is noted that an initialed copy of the PTO Form 1449 that was submitted with Applicants' Information Disclosure Statement filed November 19, 2003 has not been returned to Applicants' representative with the Office Action. Accordingly, it is requested that an initialed copy of the Form 1449 be forwarded to the undersigned with the next communication from the PTO. In order to facilitate review of the references by the Examiner, a copy of the Information Disclosure Statement and the Form 1449 are attached hereto.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefor (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Donald M. Hill, Jr.', written over a horizontal line.

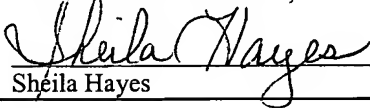
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 27, 2006


Sheila Hayes

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